IDAL
INVEST IN LEBANON

INFORMATION TECHNOLOGY
FACT BOOK

Content

SECTOR OVERVIEW

SECTOR OVERVIEW

The Lebanese Information Technology (IT)[1] sector is a fast growing sector with a market size of USD 337 million in 2012 **(Figure 1)**, and projected to reach USD 364 million in 2013. Over the next 4 years, the market is expected to grow at a compounded annual growth rate (CAGR) of 12% and reach a value of USD 570 million in 2017. The positive performance of this sector has benefited from investments in the telecom infrastructure, broadband capacity and speed.

ICT sector is a fast growing sector with an estimated market size of

337 million USD

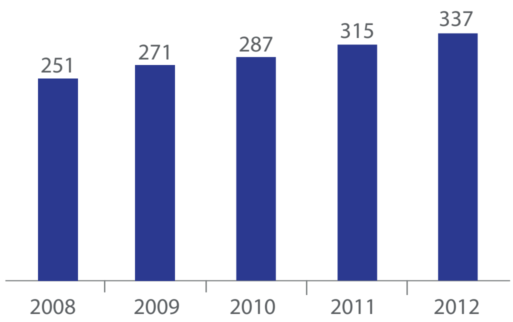
in 2012

CAGR equal to

12%

over the next 4 years

Figure 1: Lebanese ICT market value **| USD million**



Source: Business Monitor International **BMI**

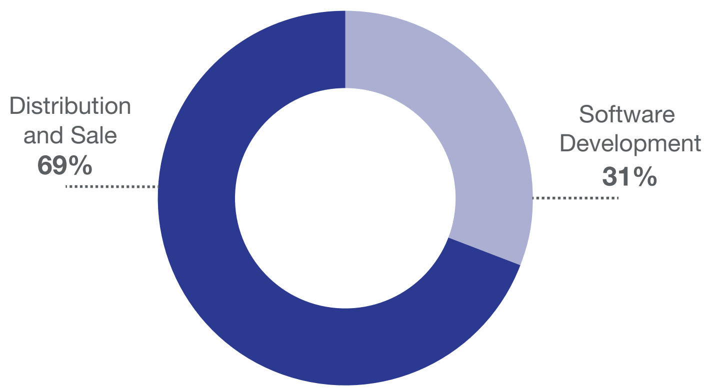
The sector is mostly dominated by small and medium size businesses which are mostly engaged in the development of software products and mobile applications **(Figure 2).** The profile of the local ICT sector is shifting from a majority of retail and wholesale activities to innovation and content generation.

Today there are more than

300 companies

involved in ICT related activities

Figure 2: Distribution of ICT Companies by Sector **% | 2012**



Source: IDAL's calculation

[1] According to Business Monitor International (BMI), the IT sector includes: software development, hardware & IT services

Note: This distribution is based on a sample of companies registered with the Ministry of Economy and Trade, Chambers of Commerce, Professional Computer Association (PCA), Association of the Lebanese Software Industry (ALSI), and Zawya.

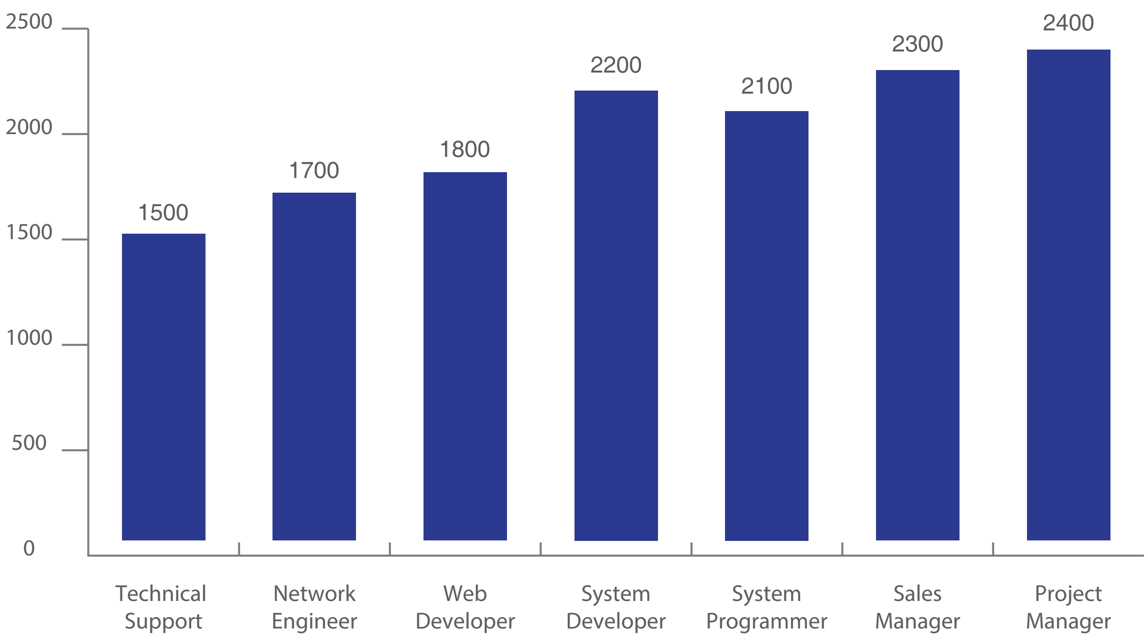
The ICT industry in Lebanon spans across an array of activities that are currently growing on the international arena:

Software production and web development are the two most mature activities which have the highest concentration of companies. In terms of industry tailored services, the banking and retail segments retain the highest share followed by education, healthcare, insurance and general trade.

EMPLOYMENT GENERATION

The ICT sector currently employs close to 7000[2] high-skilled individuals, with demand for ICT skills significantly increasing on a year-on-year basis. More than 2000 university graduates related to ICT activities join the sector every year, spread over the fields of engineering, computer science, applied informatics and media. This labor force is multilingual and endowed with the most competitive technical skills in the region, largely due to the country's outstanding educational system. According to the International ITU, 32% of the workforce is employed in knowledge-intensive activities with a highly competitive salary base. **(Figure 3)**

Figure 3: Average salaries for selected positions in IT with 5 years of experience **USD | 2013**



Source: INFOPRO

[2] Excluding employees in retail and distribution companies

EXPORT POTENTIAL

Unlike some countries facing high skills and technology barriers, Lebanon is emerging as a leading exporter of software products and services. Exports of ICT related activities[3] represent a considerable portion of the total exported services accounting for 29% of the total in 2010. This highly export oriented industry has ranked the Lebanese ICT sector first among regional countries in terms of its share of total service exports, according to the International Monetary Fund.

- More than 60% of firms engaged in ICT activities[4] are export oriented, with the majority of their revenues stemming from their activities outside Lebanon.
- Key exported products include: Vertical software applications and mobile applications.
- The Gulf region is the primary export destination for Lebanese products while other Middle Eastern countries rank second. European markets rank third, with France at the top of the list. African countries are currently emerging as a new important export destinations, being increasingly targeted by Lebanese firms .

ENABLING ENVIRONMENT

The potential of the entrepreneurial ecosystem and the levels of quality and innovation present in the Lebanese IT products have triggered considerable investments in the development of the ICT infrastructure in Lebanon. The public and private sector are increasingly investing in various incubation and business support programs to provide financing and clustering opportunities,and support the development of the country's knowledge economy:

Financing

- VC funds and angel investor networks have recently mushroomed to provide financial support to the new wave of innovative SMEs and start-ups. Today around 6 venture capital firms, including Berytech Fund, Riyada Capital, Cedrus Ventures and MEVP have operations in Lebanon in addition to various regional VCs which have backed a number of local pioneering companies. VC funds in Lebanon have deployed a total of $14 million in equity capital supporting 7 startups as of November 2012, and have accounted for around 10% of VC transactions in the region.
- A number of funding schemes have been also made available to support the activity of small and medium sized enterprises. These include schemes provided by Kafalat[5] which provides financial guarantees for loans of up to USD 400,000 granted by commercial banks to SMEs, as well as equity investments through an SME fund of USD 30 million established by the World Bank. FARO, which is another seed capital, development and orientation fund also aims at supporting SMEs in Lebanon and finances up to USD 20,000 per eligible SME. For more information on available financing schemes for ICT companies, please check out the **financing your business** fact sheet on our website.

Clustering

- The Beirut Digital District (BDD) is a new initiative aiming at building and developing clusters and linkages in Lebanon. It is a Public Private Partnership (PPP) led by the Ministry of Telecom to improve Lebanon's position as a hub for ICT development and innovation in the region. This new digital zone is now available in the heart of Beirut, 7 min away from the international airport. The zone, which spans an area of 4250 m^2, provides state of the art facilities including access to advanced IT services and fiber optics infrastructure at reduced rates.
- Around 7 incubators provide training, technical & financial assistance to new and existing businesses across Lebanon.

ICT infrastructure

To tackle mobile connectivity problems, both operators Touch and Alfa upgraded their networks in 2011. At present, 3G services cover around 90% of Lebanon with a capacity of 33 gigabytes per second, as the capacity of submarine cables increased by 11 times in the previous year. Wimax services have been deployed since 2008 and recent broadband projects also include the launch of LTE networks with a speed of 173 MB/second. Fourth generation mobile networks are made ready for any needed upgrade in the future.
The Ministry of Telecommunications completed the project of deploying a new optical fiber platform that serves as the main digital transport infrastructure for telecom services. It includes the provision of at least 300 fiber connections to ISPs, educational and governmental institutions. In addition, Lebanon is benefiting from the Mitsubishi Electric's new India-Middle East-Western Europe (IMEWE) Cable Network, a 12,091km cable with 10 terminal stations comprised of three optical fiber cable pairs with two fiber pairs on an express path . The activation of the IMEWE cable in 2011 resulted in the increase in international capacity and the reduction in prices of the internet and the international leased lines.

Beirut Digital District

[3] Includes communications, computer, information and other services cover international telecommunications and postal and courier services , computer data, news-related service transactions between residents and non-residents

[4] Including only companies engaged in software development . Based on IDAL's calculation.

[5] Kafalat is a Lebanese financial company that assists small and medium sized enterprises (SMEs) to access commercial bank funding

COMPETITIVE
ADVANTAGES

COMPETITIVE ADVANTAGES

1. QUALITY & INNOVATION DUE TO A STRONG HUMAN CAPITAL BASE

- Open, multi-cultural and multi-lingual society
- Excellent educational system

- Lebanon ranks 10th worldwide for the quality of its education, while it occupies the 4th place for quality of sciences according to the Global Competitiveness Report 2012 - 2013.
- It is ranked 3rd in the MENA region along the ICT Development Skills Index which captures ICT capabilities and skills, following Jordan and Bahrain and preceding Saudi Arabia and the UAE, according to International Telecommunication Union **(ITU)**.
- More than 30% of its workforce is employed in knowledge intensive activities, compared to 24% in Qatar, 22% in Turkey and 7% in Morocco **(Figure 4).**

2. LOW & COMPETITIVE SALARY BASE

- Skilled and creative labor force at low cost
- Competitive compared to that in Europe and GCC both in quality and cost

- The labor base is relatively cheaper than the US, Europe and GCC countries, with the average wage of of a software engineer nearly 40% lower than in the GCC and 50% lower than in selected developed economies **(Figure 5)**.

The average wage of software engineer at nearly

40%

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It occupies the

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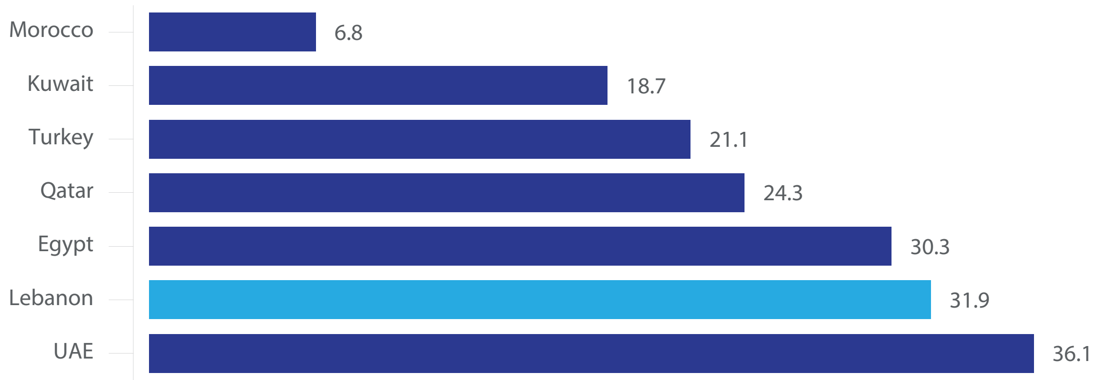
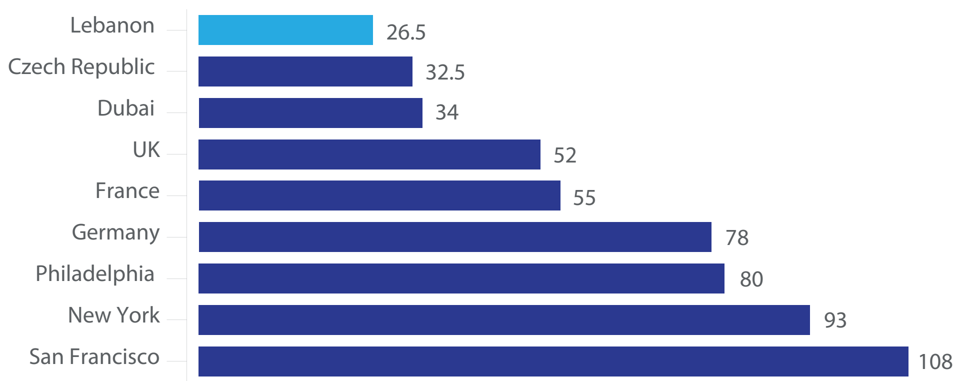
Figure 4: Share of workforce employed in knowledge intensive activities % | 2013



Source: International Telecommunication Union

Figure 5: Annual wages of software engineers in selected countries USD thousands | 2012



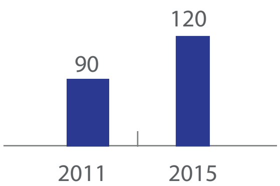
Source: Global 50. Remuneration Planning Report 2011/2012, Watson Wyatt Data Services, Glassdoor, Payscale, INFOPRO

3 ACCESS TO REGIONAL MARKETS WITH RISING DEMAND

- International business culture and wide exposure to the Arab region, Africa, and Europe
- A wide diaspora network which provides investment and business linkages opportunities
- Booming regional market for software products and mobile applications which can be served from Beirut
- Growth of e-industry in the Arab world

- Lebanon's access to expanding regional markets presents a significant opportunity: The ICT market of the MENA region is rapidly growing and is expected to reach USD 120 billion by 2015, up by 30% from its current size **(Figure 6).** This sharp increase in the level of activities presents a significant array of opportunities to investors as well as innovative entrepreneurs in the software and mobile industries.
- The internet growth rate in the Middle East has grown at an average rate of 2245% over the last decade, ranking as the second highest growth rate in the world.
- The number of Internet users in the Arab world is expected to reach 150 million by 2015, and the Arabic language to be ranked as the 4th most used language on the net
- A wave of e-government initiatives is being implemented by regional states and will result in a significant increase in regional IT spending. In certain countries, government account for up to 40% of the IT market, and will fuel the demand for IT products and services in the region

Figure 6: ICT Market Value in MENA
USD billion | 2011



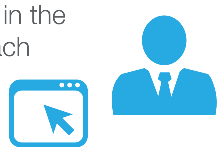
Source: Booz & Company

4. THRIVING BUSINESS ENVIRONMENT

- A flourishing entrepreneurial ecosystem with a surge in IT incubators and accelerators
- Increased government support and investments in the ICT talent base and infrastructure

- With the proliferation of incubators & business development centers, the software industry is upgrading rapidly and is witnessing a number of success stories with Lebanese companies turning global. This is increasingly supported by the fact that software programmers and designers in the Lebanese ICT sector are considered among the best in the Middle East.
- The growth of the ICT sector is among the government top priorities:
  - The latter is working on issuing the needed regulations on intellectual property protection given that security will be a strong underlying reason for future IT investments
  - It has invested in the setup of the Beirut Digital District which was launched in September 2012 to host companies in the digital media and ICT sectors & provide them with state-of-the-art infrastructure
- Public and private stakeholders are making more and more financing mechanisms accessible to small as well as large companies, including financial incentives provided by IDAL through its Investment Law No.360.

The number of Internet users in the Arab world is expected to reach



150 million

by 2015

The Arabic language to be ranked as

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SUBSECTORS
OVERVIEW

SUBSECTORS OVERVIEW

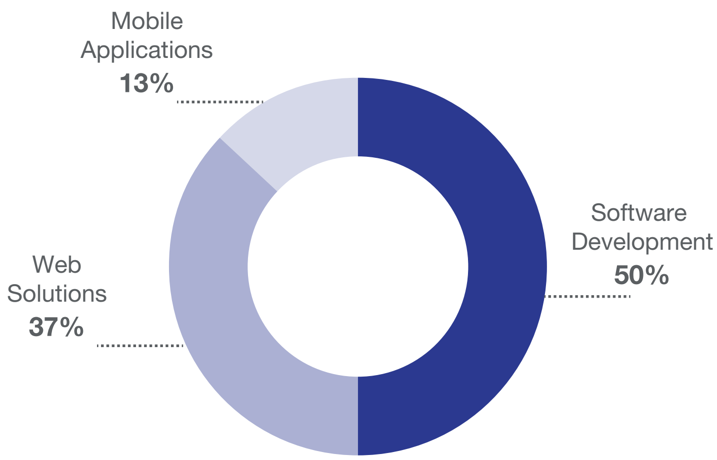
SOFTWARE DEVELOPMENT

Software development activities have grown steadily in Lebanon in the past few years. The software market value was estimated at USD 46 million in 2013, and is expected to grow at a CAGR of 14% from 2013 to 2017 with the enforcement of intellectual property rights, the reduction of software piracy and the upgrade of the IT infrastructure.

The software industry includes software development activities, web solutions and the development of mobile applications and services **(Figure 7)**. In terms of content generation, most businesses have developed expertise in specific areas, most notably:

- The development of specialized applications
- The development of web solutions including: Web hosting and web design and development
- The supply of e-services to the banking (26% of total e-services), healthcare and education (16%), retail sectors and other
- The creation of multimedia products and mobile applications
- The development of mobile and smartphone applications

Figure 7: Distribution of software companies by type of activity **% | 2012**



Source: IDAL's calculation

HARDWARE

Computer sales in Lebanon are expected to reach USD 226 million in 2013, and grow at a CAGR of 11% per year over 2013-2017 period. The market is still far from saturated, with overall PC penetration rates reaching 16%. Demand for computers is on a steady rise among the various industries and at household levels, due to a number of private and public schemes making low-price computers available, investing in e-services and developing the broadband infrastructure. The PC market is still dominated by the major international IT hardware manufacturers which are represented in the country through local agents and distributors. Rapid revenue growth is generated as the Lebanese consumer market is young and has a great appetite for high tech products.

IT SERVICES

The size of the Lebanese IT services market[6] is estimated to reach a value of USD 93 million in 2013, accounting for 25% of total IT spending. The pickup in IT services is forecasted to continue with a CAGR of 13% during 2013 - 2017, as spending on e-services by governments, businesses and telecom companies is continuously increasing. Currently support and maintenance constitute the largest share of spending on IT services however demand for more complex services such as managed services, value added services and facilities management are on the rise.

[6] According to Business Monitor International (BMI) IT services include: support, implementation and integration, training and maintenance

INVESTMENT
OPPORTUNITIES

The set of competitive advantages that characterizes the local ICT sector defines the areas of great potential and generates an array of promising opportunities.

These investment opportunities are mainly concentrated within the following areas:

1
Mobile Applications

The expansion of mobile broadband networks, the upsurge in smartphones penetration in the region and the young profile of the Arab population fuel the demand for mobile applications. A particular edge characterizes the Lebanese talent base as they have successfully adapted the latest market trends to the local needs, languages and cultures.

2
Development of E-services

With the rising number of Arabic internet users, opportunities exist for companies established in Lebanon in the development of local content for:

- E-commerce platforms and e-services, mainly as a result of a series of e-government initiatives taking place in Lebanon and the region
- E-music providers in the Arabic language
- E-learning platforms in the Arabic language

3
Cloud Computing

An increasing number of organizations are shifting their data centers towards cloud infrastructure, fueling a strong demand for all cloud services ranging from infrastructure, platform to applications. Lebanon presents a significant opportunity for the development of cloud based applications such as SaaS (Software as a Service) as companies based in Lebanon can serve the SMEs which are prevalent in the region, while the language knits the various countries into one large market.

4
Vertical Market Software

Lebanese IT developers have developed high levels of expertise in vertical application software tailored to specific industries, mainly the medical, banking and finance, and insurance segments. This niche sector has been highly export focused, serving the growing markets of the region, Europe, North America and the emerging African countries.

5
Outsourcing base for software production

With international companies increasingly looking for cost efficient and flexible solutions, Lebanon has been chosen by a number of foreign corporations as an offshore outsourcing base. The Lebanese workforce offers plenty of growth potential in this segment mainly due to its high levels of: expertise and specialization, flexibility and professionalism, cost effectiveness as well as innovation and internationalization.

Lebanon's opportunities are not limited to those present within the domestic market but more importantly, within the expanding regional markets to which Lebanon has easy access to. Given Lebanon's geographical location, open business culture and highly skilled labor force, investing in Lebanon allows companies to cater to a growing regional market of 380 million consumers.

Facts about the Arab Digital Generation

- 41% search the internet in both Arabic and English
- 37% percent are not satisfied with the availability of Arabic websites
- 48% believe that the region's healthcare services require technological upgrades; 43% believe this of education services

Source: The Booz & Company – Google Arab Digital Generation Survey 2012

INVESTMENTS
IN THE SECTOR

Sustained investments in the sector over the last few years highlight local and international investors eagerness and appetite for the local ICT market. Investors in this sector have benefited from a well-educated consumer base with an eager appetite for new technologies, as well as a wide exposure to regional markets.

LOCAL INVESTMENTS

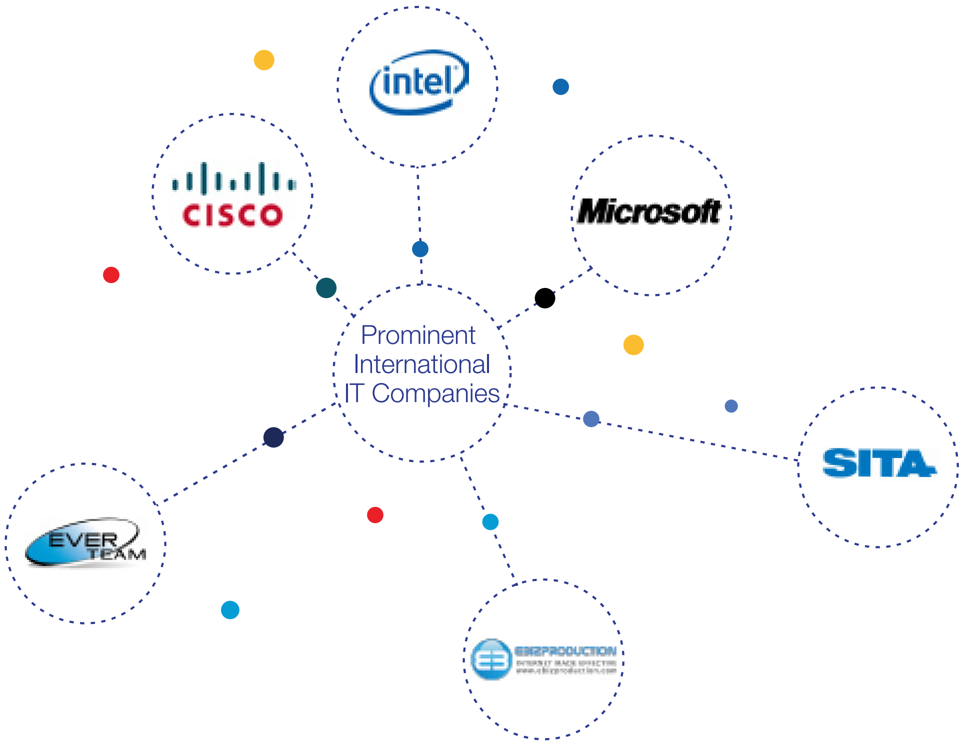
Several local companies have already established themselves as important regional players in the communication and software markets; companies have equally branched out to the Middle East and African markets in addition to markets like Europe and the United States.
These enterprises have established inter-linkages between IT and other sectors, and have directly influenced their profitability and operational success. They now form a basis to develop the sector and a firm supplier base to other related fields. Key players in the software sub sector include Roxana, Navleb, Istisharat, DCSoft and Netways.

A series of success stories have also been registered by local innovative startups, which have expanded and are now successfully competing on the international arena. Examples include: Foo, Dermandar and Cinemoz.

FOREIGN INVESTMENTS

Multinational corporations form a significant part of Lebanon's high-tech environment. An adequate governance structure, reinforced with new laws that protect property and patents, together with a pool of qualified human resources have facilitated investments and attracted a greater share of FDI towards ICT operations. Several foreign companies have opened subsidiaries in Lebanon with their number constantly increasing.

Example of foreign companies in Lebanon engaged in ICT activities



Prominent international IT companies have established themselves within the Lebanese market and are operating through their subsidiaries in Beirut including Microsoft, Intel, and Cisco among many others.

REGULATORY FRAMEWORK

In recognition of the impact of the legal environment on the performance of the ICT sector, the government has placed a special focus on the reform and modernization of ICT related laws. The main regulations governing the sector are mentioned below.

TELECOMMUNICATIONS LAW

Law 431, or the Telecommunications Law as it is often referred to, was issued in 2002 to provide the governance framework needed to organize the telecommunications services sector and set the rules for its transfer to the private sector.
The Telecommunications Regulatory Authority (TRA) was subsequently formed to regulate the liberalization of the sector, and ensure the creation of a competitive environment.

INTELLECTUAL PROPERTY LAW

The Intellectual Property Law (IP) was drafted by the Ministry of Economy and Trade (MoET), and passed as a law in 1999. Provisions under the law cover patents, industrial designs, trademarks, copyrights, unfair competition, & penalties for infringement.

INVESTMENT LAW No.360

IDAL offers companies, engaged in the IT sector, a set of incentives and facilitation services as per the Investment Law No.360. Companies can benefit from up to 100% exemption on corporate income tax over a period of 10 years in addition to other fiscal incentives, provided that they meet certain requirements in terms of investment size and employment generation.

COMPETITION LAW

The new competition law - drafted by the MoET - prevents all forms of anti-competitive agreements and abuses of dominance. These provisions ensure competition and easier market access, and therefore allow for greater consumer welfare, economic efficiency, increased output and rapid technical advancement.

E-COMMERCE BASKET OF LAWS

The Ministry of Economy and Trade has drafted and presented to the Parliament a basket of laws in support of the ICT sector. This basket includes amendments as well as new laws destined to enable e-commerce in the country. Laws cover the fields of E-signature, E-payment, E-transactions, consumer protection, privacy, copyright, and cyber-crimes.

LAW ON ANTI-DUMPING, SUBSIDIES & SAFEGUARDS

The law was issued with the aim of protecting national production as well as legitimate original products from dumped and subsidized imports.

USEFUL
CONTACTS

USEFUL CONTACTS

Ministry of Telecommunications
www.mpt.gov.lb

Ministry of Economy and Trade
www.economy.gov.lb

Telecommunications Regulatory Authority
www.tra.gov.lb

Office of the Minster of State for Administrative Reform
www.omsar.gov.lb

Presidency of the Council of Ministers, National ICT coordinating office
www.ict.pcm.gov.lb

Central Bank of Lebanon
www.bdl.gov.lb

Investment Development Authority of Lebanon **IDAL**
www.investinlebanon.gov.lb

Kafalat
www.kafalat.com.lb

OGERO
www.ogero.gov.lb

Professional Computer Association of Lebanon **PCA**
www.pca.org.lb

Association of the Lebanese Software Industry **ALSI**
www.alsionline.org

Berytech
www.berytech.org

Beirut Digital District **BDD**
www.beirutdigitaldistrict.com

Business Incubation Association in Tripoli **BIAT**
www.biatcenter.org

South Business Innovation Center **SOUTH BIC**
www.southbic.org

Bader
www.baderlebanon.com

Endeavor
www.endeavor.org

Seeqnce
www.seeqnce.com

Altcity
www.altcity.me

Sources:

- Sector Database
- Beirut Digital District

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